

WHAT IS CLAIMED IS:

1. A graphics adapter, comprising:
a frame buffer operable to store graphics image data; and
a network interface operable to receive at least a portion of said graphics
image data, said network interface further operable to format said received graphics
image data into a plurality of packets for transmission over a communication network.
2. The graphics adapter of claim 1, further comprising a network
interface port coupled to said network interface, said plurality of packets being
transmitted from said network interface to said communication network via said
network interface port.
3. The graphics adapter of claim 2, wherein said network interface port is
selected from the group consisting of an Ethernet port, an Infiniband port, and a
wireless network transceiver.
4. The graphics adapter of claim 1, further comprising a compression unit
coupled to said frame buffer and operable to compress graphics image data of said
frame buffer into compressed graphics image data.
5. The graphics adapter of claim 4, said network interface further
operable to format said compressed graphics image data into a plurality of packets for
transmission over said communication network.
6. The graphics adapter of claim 1, further comprising a video transmitter
operable to transmit graphics image data from said frame buffer to a processor-based
system associated with said graphics adapter.
7. The graphics adapter of claim 6, wherein said video transmitter is
selected from the group consisting of a RAMDAC (Random Access Memory Digital
to Analog Converter) and a DVI (Digital Visual Interface) transmitter.

8. The graphics adapter of claim 6, further comprising a video output port coupled to said video transmitter, said graphics image data being transmitted from said frame buffer via said video output port.

5 9. The graphics adapter of claim 8, wherein said video output port is selected from the group consisting of an analog video port and a digital video port.

10 10. The graphics adapter of claim 1, said plurality of packets being transmitted to at least one destination device.

10001430 103101
10 11. The graphics adapter of claim 1, wherein a first selected plurality of said plurality of packets is for transmission to a first destination device and a second selected plurality of said plurality of packets is for transmission to a second destination device.

15 12. A method for transmitting graphics image data over a communication network, comprising:

logically dividing a frame buffer of a graphics adapter into a plurality of segments, each of said plurality of segments storing graphics image data corresponding to a destination device of a plurality of destination devices;

20 selecting a segment of said plurality of segments corresponding to a destination device of said plurality of destination devices; and

formatting at least a portion of said graphics image data stored in said selected segment into a plurality of packets for transmission by a network interface of said
25 graphics adapter to said destination device over said communication network.

13. The method of claim 12, further comprising transmitting said plurality of packets to said destination device over said communication network.

30 14. The method of claim 12, further comprising receiving an update request from said destination device of said plurality of destination devices prior to said selecting step.

15. The method of claim 14, said selecting step comprising selecting, in response to receiving said update request, said segment of said plurality of segments corresponding to said destination device of said plurality of destination devices.

16. The method of claim 12, further comprising adding identification information identifying said destination device to each of said plurality of packets.

17. The method of claim 16, wherein said identification information is an Internet Protocol (IP) address of said destination device.

18. The method of claim 13, further comprising transmitting said plurality of packets to another destination device of said plurality of destination devices.

19. A method for transmitting graphics image data over a communication network, comprising:

comparing graphics image data of a new image for a destination device with graphics image data of a previous image for said destination device stored in a frame buffer of a graphics adapter remote from said destination device;

selecting blocks of graphics image data of said new image that are different from corresponding blocks of graphics image data of said previous image; and

formatting, by said graphics adapter, said selected blocks of graphics image data of said new image into a plurality of packets for transmission by a network interface of said graphics adapter over said communication network.

20. The method of claim 19, further comprising transmitting said plurality of packets to at least one destination device over said communication network.

21. The method of claim 19, further comprising compressing said selected blocks of graphics image data prior to formatting said selected blocks of graphics image data.

22. The method of claim 19, further comprising adding identification information identifying said selected blocks to said plurality of packets.

23. The method of claim 22, wherein said identification information comprises block numbers for said selected blocks.

24. The method of claim 22, wherein said identification information comprises coordinate information for a plurality of corners of said selected blocks.

25. The method of claim 20, further comprising waiting for a request for graphics image data from at least one of said at least one destination device.

26. A graphics adapter, comprising:
a frame buffer operable to store graphics image data; and
a network attachable graphics chip coupled to said frame buffer, said network attachable graphics chip comprising:
a graphics unit operable to render a graphics image, said graphics unit further operable to provide graphics image data relating to said rendered image to said frame buffer;
a compression unit operable to compress graphics image data of said frame buffer into compressed graphics image data; and
a network interface operable to format said compressed graphics image data into a plurality of packets for transmission over a communication network.

27. The graphics adapter of claim 26, further comprising a network interface port coupled to said network attachable graphics chip, said plurality of packets being transmitted from said network interface to said communication network via said network interface port.

28. The graphics adapter of claim 27, wherein said network interface port comprises an Infiniband port.